

## SCOPE OF WORK

### **A. CONTRACT TERM**

- The initial term will be for one year from the date of execution.
- The State reserves the right to amend the term of the Contract upon mutual agreement of the parties.

### **B. BACKGROUND AND SCOPE OF WORK**

#### BACKGROUND

The Delta Protection Commission (DPC) intends to update sections of the Economic Sustainability Plan (ESP) related to agriculture, in light of new State and federal planning efforts that have occurred since the 2012 publication. After adopting the ESP in 2012, the Commission forwarded a “Proposal to Protect, Enhance, and Sustain the Unique Cultural, Historical, Recreational, Agricultural and Economic Values of the Sacramento-San Joaquin Delta as an Evolving Place” to the Delta Stewardship Council for consideration and incorporation into the Delta Plan. In particular, the Proposal contained five recommendations for the sustainability of agriculture; four were accepted by the Delta Stewardship Council as consistent with the objectives of the Delta Plan and Delta Reform Act. The Commission intends to develop new policy proposals concerning agricultural sustainability for the Delta Stewardship Council to consider incorporating into the 2017-18 Delta Plan amendments concerning the Delta as an evolving place.

#### TASKS

1. **Changes in the Delta’s Land Base and Agricultural Economy.** Using readily available and low cost data, models and analytical techniques, investigate and identify patterns of land use related to agriculture in the Delta. Compile such data and models to determine the overall patterns of agricultural land use in the Delta and the economic value of these lands to the State, including detailed information by County. Prepare a Technical Memorandum that updates existing ESP Chapter 7.2, “Current Status and Trends,” including Tables 6 through 10, and update Chapter 7.3, “Economic Value of Delta Agriculture,” including updating Tables 11 through 14 ( including detailed information by County), using the most current version of IMPLAN to estimate the economic impact of Delta agriculture. Based on the crop pattern in the Delta, provide explanation of the likely change to this pattern from continued implementation of recent farm labor (overtime and minimum wage) legislation.
2. **Economic Impacts of Conservation and Ecosystem Restoration Measures.** Research and write a Technical Memorandum that catalogs the various Delta conservation and ecosystem restoration proposals and projects that have changed or solidified since 2012. This catalog will include, but is not limited to:
  - a. the State’s efforts to create habitat to fulfill the 2009 Biological Opinion issued to U.S. Bureau of Reclamation by National Marine Fisheries Service;

- b. the planning effort by California Natural Resources Agency known as EcoRestore;
- c. the 2017 update of the Central Valley Flood Protection Plan to expand Yolo Bypass and add habitat;
- d. the various State agency Proposition 1 grant programs to restore habitat in the Delta;
- e. information on the extent of land ownership in the Delta dedicated to restoration, including land ownership by public agencies and conservation organizations;
- f. the planning areas for any Delta cities or counties that have written (or are writing) Regional Conservation Investment Strategies (Chapter 455, Statutes of 2016); and
- g. the various Habitat Conservation Plan/Natural Communities Conservation Plan planning efforts within Delta counties.

This Technical Memorandum will update and expand ESP Chapters 7.6.2 through 7.6.3. Noting the significant State efforts that have developed since 2012 to increase the number and types of restoration projects that both preclude agriculture (tidal marsh restoration, for example) and that restrict agriculture (wildlife-friendly farming that restricts crop use or cultural practices), the Technical Memorandum will evaluate how these land use changes may impact the local agricultural industry.

3. **Salinity's Impact on Delta Agriculture.** In the Delta region, water quality degradation from increased salinity may make production of certain crops increasingly challenging. These pressures will be geographically specific. In light of changes to water quality policy and regulations, prepare a Technical Memorandum analyzing how current and potential future (informed by proposals such as CA WaterFix) salinity levels (essentially a bookend analysis) could alter crop choices and yields. Also, provide information on recent historic changes in Delta waterway salinity and the impact on Delta agricultural production. The Technical Memorandum will also update ESP Chapter 7.6.1 through 7.6.2 on how future water quality could impact the agricultural economy. Rely on existing information to estimate future trends in crop patterns. This may include, but is not limited to, climate models and other information developed in the State Water Resource Control Board's update of the 2006 Water Quality Control Plan for the Bay-Delta and the flow objectives for priority tributaries.
4. **Delta-Specific Climate Change and Adaption Strategies.** Climate change alters both average and extreme temperatures and precipitation patterns, which in turn influences crop yields, pest and weed ranges and introduction, and the length of the growing season. Sea level rise, changing rain patterns, and increased winter run-off together with earlier snowmelt will increase low-land flooding risks. Climate change might also affect temperatures in Delta waterways and the corresponding increase in invasive aquatic weeds. The current ESP is silent on the possible impacts from climate change to the Delta's substantial agricultural economy, and does not have any Delta-specific proposal for climate adaptation strategies. Prepare a Technical Memorandum that analyzes possible impacts of climate change and adaptation strategies to the Delta's crops. Make use of existing information on climate change, including work published by The Natural Resources Agency in 2009, and the most recent California's Climate Change Assessment (completed in 2014). Work with Delta stakeholders to compile a list of possible adaptation strategies that could improve climate resiliency in the Delta.